Permanent Magnet Rotor Having Magnet Positioning And Retaining Means

ABSTRACT

The present invention relates to a permanent magnet rotor permanent magnet positioning and retaining device comprising a sleeve, a rotor iron core properly provided therein, a plurality of arc-shaped permanent magnets of alternation poles disposed between the sleeve and the rotor, a plurality of near triangle-shaped regions between two adjacent permanent magnets being formed by cutting off the outer perimeter corners of two adjacent permanent magnets, wherein said rotor iron core further comprises a plurality of circumferentially provided grooves for separating two arc-shaped permanent magnets of alternating poles and a plurality of dividers, each being provided between two arc-shaped permanent magnets of alternating poles; said divider, between the rotor iron core and the sleeve, further comprises a base being engaged with a groove so that the dividers are secured to the rotor iron core, a trunk capable of filling the gap between two adjacent permanent magnets to prevent said permanent magnets from moving in circumferential direction, and a near triangle-shaped rim capable of forming tight engagement with said cut-off area so as to prevent permanent magnets from moving in radial direction.